

What we claim is:

- 1 \ 1. A process for forming at least one transistor on a substrate,
2 which process comprises depositing on the substrate at least one layer of
3 semiconductor material, wherein the substrate comprises a polyphenylene polyimide.
- 1 2. A process according to claim 1 wherein the polyphenylene
2 polyimide is a derivative of biphenyl-3,3',4,4'-tetracarboxylic acid.
- 1 3. A process according to claim 2 wherein the polyimide is a
2 derivative of biphenyl-3,3',4,4'-tetracarboxylic acid and an α,ω -alkanediamine.
- 1 4. A process according to claim 1 wherein a passivating layer is
2 deposited on the substrate before the semiconductor material is deposited thereon.
- 1 5. A process according to claim 4 wherein the passivating layer
2 comprises silicon dioxide or aluminum nitride.
- 1 6. A process according to claim 4 wherein the passivating layer
2 has a thickness in the range of about 20 to about 100 nm.
- 1 7. A process according to claim 4 wherein the passivating layer is
2 deposited on both surfaces of the substrate.
- 1 8. A process according to claim 4 wherein the substrate is heated
2 to a temperature greater than about 150°C for a period of at least about 1 minute
3 before deposition of the passivating layer.
- 1 9. A process according to claim 4 wherein the substrate is heated
2 to a temperature greater than about 250°C for a period of at least about 5 hours after
3 deposition of the passivating layer.
- 1 10. A process according to claim 1 wherein the substrate is heated
2 to a temperature greater than about 250°C for a period of at least about 1 hour before
3 deposition of the semiconductor material.
- 1 11. A process according to claim 1 wherein the substrate comprises
2 a metal layer on the side thereof remote from the semiconductor material.

